

Preparing for and Conducting Air Quality Compliance Audits

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Overview

- Purpose of environmental air quality audits
- Getting ready to conduct the audit
- Conducting the audit
- Presenting results



Purpose of Environmental Air Quality Audits

- Understand the Reason for the Audit
 - Due diligence before facility transfer of ownership
 - Due diligence before signing compliance certification statement
 - Routine periodic audit requested by management



Getting Ready to Conduct the Audit

Collecting Information

- Determine the time period relevant to the review
- Assemble all relevant permits
- Assemble copies of all potentially applicable regulations
- Collect relevant equipment specifications
- Collect previous annual emission statements
- Collect source test reports
- Collect NOVs, upset breakdown reports, permit applications



Getting Ready to Conduct the Audit

Review Materials

- Read (or re-read) all permits and regulations to make sure you understand the applicable requirements
 - Don't rely on your memory!



Getting Ready to Conduct the Audit

Getting Organized

- Create a spreadsheet/database listing every permit condition and regulatory requirement potentially applicable to the facility
- Specifically identify all applicability criteria (horsepower ratings, emission rates)
- Identify which items of equipment/processes may possibly be subject to each requirement



Getting Ready to Conduct the Audit

Sample Applicable Requirement Table

NSPS PROGRAM

Regulation	Requirement Summary	Applicable Equipment	Action required	Submittal Timing	Requirement Classification	Compliance Review Results
40 CFR 60.7.a.1	Notification of date of construction	Units A and B	Submit a notification to the EPA of date construction begins	No later than 30 days following date construction begins	Federal	
40 CFR 60.7.a.3	Notification of date of initial equipment startup	Units A and B	Submit a notification to the EPA of the date of initial equipment operation	No later than 15 days following date of initial operation of each unit	Federal	
40 CFR 60.7.a.5	Notification of date of CEM system initial performance evaluation	Units A and B	Submit a notification to the EPA of the date the CEM system performance evaluation begins	No later than 30 days prior to the CEM system performance evaluation for each unit	Federal	
40 CFR 60.7.c and 60.334.J.5	Quarterly CEM excess emission reports	Units A and B	Submit quarterly CEM system excess emission reports to the EPA	No later than 30 days following the end of each calendar quarter	Federal	



Getting Ready to Conduct the Audit

Getting Organized

- Complete as much of the table as possible based on a desk review.
- Identify/highlight items that need to be verified/confirmed through physical inspection
- Identify/highlight additional records that need to be reviewed as part of the site inspection



Getting Ready to Conduct the Audit

Getting Organized

- Let the site staff know when you are coming.
- Let the site staff know what equipment/processes you will want to observe.
 - If specific equipment/processes need to be in operation for you to verify compliance, plan your schedule accordingly.
- Give the site staff a list of the documents/types of documents you will need to inspect; make sure they have sufficient time to track them down.



Getting Ready to Conduct the Audit

Getting Organized

- Organize your site visit efficiently.
 - Familiarize yourself with the facility site plan; know where all equipment you will want to inspect is located.
 - Make sure you have sufficient time scheduled to cover travel, inspections, and on-site document reviews.



Conducting the Site Audit

- Check in with your site contact before conducting the site audit
- Observe all safety requirements!
- Take notes as you go along; do NOT rely on your memory.
- Verify equipment specifications by locating nameplates and recording relevant information.



Conducting the Site Audit (cont'd)

- Note operating conditions (equipment load, steam flow, fan speeds, etc.) at the time you make your observations
- Photographs of nameplates and equipment can be helpful. **GET PERMISSION FIRST!**



Presenting the Results

- Following the site visit, return to your spreadsheet/database and evaluate compliance with all requirements
- Identify missing/unclear items that require additional information



Presenting the Results

Audit Results

- Conclusions should take one of five forms:
 1. In compliance – this conclusion should be reached if you can confirm, based on a physical inspection or record review, that a source or process is in compliance with a particular requirement



Presenting the Results

Audit Results (cont'd)

- Conclusions should take one of five forms:
 2. Not applicable – this conclusion should be reached if a particular requirement is not longer applicable, or was previously applicable but no longer is.
 - Example: Notification to an agency is required upon commencement of construction, but construction commenced prior to the audit period of record.



Presenting the Results

Audit Results (cont'd)

- Conclusions should take one of five forms:
 3. Could not be determined – this conclusion should be reached if compliance with a particular requirement could not be established during the audit
 - Example: A permit condition limits opacity during equipment startup, but the equipment did not undergo a startup during your site inspection. If there is evidence of past compliance, note that in your audit report; however, your conclusion would still be “could not be determined”.



Presenting the Results

Audit Results (cont'd)

- Conclusions should take one of five forms:
 4. Not in compliance - minor – this conclusion should be reached if noncompliance with a particular requirement was observed, but the noncompliance did not result in excess emissions, or was a paper/documentation violation that was not consistently observed.
 - Example: A permit condition requires submission of quarterly reports, but one of the quarterly reports required during the audit review period was not submitted due to an oversight.



Presenting the Results

Audit Results (cont'd)

- Conclusions should take one of five forms:
 5. Not in compliance - significant – this conclusion should be reached if noncompliance with a particular requirement was observed, and the noncompliance resulted in excess emissions or is part of a pattern of noncompliance.
 - Example: A permit condition requires notification of the air district within four hours of an equipment breakdown, but there have been several breakdowns, no notification reports were submitted, and plant staff were unaware of the requirement.



Presenting the Results

Audit Results (cont'd)

- Significant compliance problems should be discussed, by telephone, with the entity requesting the audit as soon as they have been confirmed
- A complete audit report should be transmitted to the requestor in writing
- Determine whether audit report is to be submitted to counsel as attorney work product



Presenting the Results

Audit Results (cont'd)

- Contents of the audit report
 - Transmittal letter indicating the time period and facility covered by the audit, dates of document/facility reviews, a general statement of compliance/non-compliance, and highlighting all significant noncompliance
 - Detailed spreadsheet/database printout discussing the compliance status for every potential requirement.



Sample Compliance Worksheet

NSPS PROGRAM

Regulation	Requirement Summary	Applicable Equipment	Action required	Submittal Timing	Requirement Classification	Compliance Review Results
40 CFR 60.7.a.1	Notification of date of construction	Units A and B	Submit a notification to the EPA of date construction begins	No later than 30 days following date construction begins	Federal	1/2/03 letter from John Doe to EPA notifying EPA of start of construction on 12/15/02.
40 CFR 60.7.a.3	Notification of date of initial equipment startup	Units A and B	Submit a notification to the EPA of the date of initial equipment operation	No later than 15 days following date of initial operation of each unit	Federal	4/15/04 letter from Jim Smith (Design Rep) to Acid Rain Program Administrator EPA Region IX that commercial operation (first fire)
40 CFR 60.7.a.5	Notification of date of CEM system initial performance evaluation	Units A and B	Submit a notification to the EPA of the date the CEM system performance evaluation begins	No later than 30 days prior to the CEM system performance evaluation for each unit	Federal	7/15/04 letter to Acid Rain Program Administrator EPA Region IX notifying EPA of initial compliance test and CEM certification tests starting on 8/1/04.
40 CFR 60.7.c and 60.334.J.5	Quarterly CEM excess emission reports	Units A and B	Submit quarterly CEM system excess emission reports to the EPA	No later than 30 days following the end of each calendar quarter	Federal	According to 6/15/06 discussion with plant engineer, no quarterly NSPS reports submitted to EPA for 1Q06.



Conclusions

- Advance preparation is the key to a successful audit
- 80% or more of the effort involved in an audit is related to getting organized before you ever visit the site
- Be sure your conclusions are clear and accurate, and provide the facility with enough information so that all deficiencies can be corrected.

